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## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-306442  
 (43)Date of publication of application : 05.11.1999

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(51)Int.Cl. G07G 1/12

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(21)Application number : 10-115121 (71)Applicant : OMRON CORP  
 (22)Date of filing : 24.04.1998 (72)Inventor : FUNAKOSHI HIROSHI  
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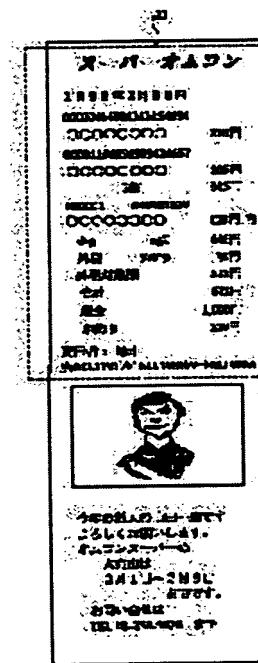
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## (54) TRANSACTION PROCESSOR

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To improve the sale of a store by fixing customers by issuing a receipt on which an image for promoting the purchase will of the customer or improving the impression of the store for the customer is printed under transaction contents.

**SOLUTION:** After the contents of a transaction are printed, based on inputted transaction data, POS terminal equipment 1 issues a receipt 11 while printing the introduction sentences of an operator together with the face image of that operator. Thus, since the face image or introduction sentence of the operator is printed on the receipt 11, the feeling familiar to the operator is given to the customer and the good impression of the store familiar for the customer can be applied. As a result, the sale can be improved by fixing the customer to the present store.



## LEGAL STATUS

[Date of request for examination] 06.06.2002

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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## CLAIMS

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## [Claim(s)]

[Claim 1] It is the dealings processor which is equipped with the input section which inputs the dealings data about dealings, the printer which prints the contents of dealings based on the inputted aforementioned dealings data, and the storage section which memorizes image information, and prints a picture based on the image information which has memorized the aforementioned printer in the aforementioned storage section after printing of the contents of dealings.

[Claim 2] The aforementioned storage section is the dealings processor [ equipped with the control section which determines the picture printed by the aforementioned printer from two or more image information which memorizes two or more image information and is memorized by the aforementioned storage section ] according to claim 1.

[Claim 3] It is the dealings processor according to claim 2 which the aforementioned storage section memorizes a face picture for every operator as the aforementioned image information, and the aforementioned input section receives the input of the operator code which discriminates an operator, and determines an operator's face picture discriminated in operator code into which the aforementioned control section was inputted as the picture printed by the aforementioned printer.

[Claim 4] It is the dealings processor according to claim 2 which the aforementioned storage section memorizes the picture for every goods as the aforementioned image information, and determines the picture of the goods which print the aforementioned control section by the aforementioned printer based on the inputted aforementioned dealings data.

[Claim 5] It is the dealings processor according to claim 2 which the aforementioned storage section memorizes the picture of an event as the aforementioned image information, and determines the picture of the event which prints the aforementioned control section by the aforementioned printer based on today's date.

[Claim 6] The aforementioned storage section memorizes two or more face picture part information that characteristic quantity differs about each of two or more face parts. the aforementioned control section The dealings processor according to claim 2 made into the picture which receives the input of face image data, processes this face image data, reads the aforementioned face picture part information for every face parts based on the characteristic quantity which extracted and extracted characteristic quantity for every face parts, creates a face picture, and prints this created face picture by the printer.

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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

#### [0001]

[The technical field to which invention belongs] This invention relates to the dealings processor which publishes a receipt characteristic especially at the time of dealings processing about dealings processors, such as a POS terminal which processes dealings based on the inputted dealings data.

#### [0002]

[Description of the Prior Art] Conventionally, at the store, the goods in which it trades are registered into dealings processors, such as a POS terminal, the dealings amount of money is paid, and dealings with a customer are processed. The receipt which printed the content of dealings at the time of settlement of accounts is published, and it enables it to check whether a customer is correct by the content of dealings from the content of printing of this receipt in a common dealings processor.

#### [0003]

[Problem(s) to be Solved by the Invention] By the way, recently, a performance becomes good and the printer applied to dealings processors, such as a POS terminal, can also print not only a character but a picture clearly.

[0004] However, in the conventional dealings processor, as a picture, the LOGO of a store was only printed in the upper part of a receipt, the contents of dealings which almost all portions become from a character were printed, and there was no big difference in the receipt which publishes every store. On the other hand, since a receipt is what is passed to a customer, it attains differentiation with other stores by giving the feature to a receipt, and is in the inclination to use for improvement in sales. Then, a receipt more characteristic than other stores is published and the dealings processor which can raise sales is demanded.

[0005] The purpose of this invention is by publishing the receipt which printed the picture which promotes a customer's attractiveness to consumers under the contents of dealings, and the picture which raises the image over a customer's store to offer the dealings processor which can fix a customer to a self-store and can improve the sales of a store.

#### [0006]

[Means for Solving the Problem] The dealings processor of this invention is equipped with the input section which inputs the dealings data about dealings, the printer which prints the content of dealings based on the inputted aforementioned dealings data, and the storage section which memorizes image information, and the aforementioned printer prints a picture after printing of the content of dealings based on the image information memorized to the aforementioned storage section.

[0007] The receipt which printed the picture memorized by the storage section under the content of dealings can be made to publish with this composition. Here, if the storage section is made to memorize the picture which promotes a customer's attractiveness to consumers, and the picture which raises the image over a store, a customer can be fixed to a self-store and the sales of a store can be improved as a result.

[0008] Moreover, the aforementioned storage section is equipped with the control section which

determines the picture printed by the aforementioned print r from two or more image information which memorizes two or more image information and is memorized by the aforementioned storage section.

[0009] With this composition, a control section determines the picture printed in a receipt out of two or more pictures memorized by the storage section.

[0010] Moreover, a sense of closeness can be given to a customer for the picture printed in a receipt to an operator's face picture, then self-store, and, thereby, a customer can be fixed to a self-store.

[0011] Moreover, if the picture of the goods of the failure guessed from the goods which the customer purchased to buy it, a bargain, or a customer's favorite goods is printed, the purchase of the goods printed in this receipt to the customer can be urged effectively, and the sales of a store can be raised as a result.

[0012] Moreover, if the picture of an event is printed, the pleasure which looks at the picture printed by the receipt published to dealings \*\*\*\*\* to a customer can be given, a customer can be fixed to a self-store by this, and sales can be raised.

[0013] Furthermore, if a customer's portrait is printed, the image which a customer has to a self-store can be improved, a customer can be fixed to a self-store by this, and sales can be raised.

[0014]

[Embodiments of the Invention] Drawing 1 is drawing showing the appearance of the dealings processor which is the operation gestalt of this invention, and drawing 2 is the block diagram showing the composition of this dealings processor. The control section A which has CPU2, ROM3, and RAM4 by which POS terminal 1 controls operation of a main part The input section 5 which performs alter operation, such as registration of goods, and the display 6 which displays the information about the registered goods etc., It has the printer 7 which publishes the receipt which printed the content of dealings, the card processing section 8 which reads the information memorized by the customer card which a customer owns, and the database 9 which memorized the operator information mentioned later. Bar code reader 5b which reads goods identification code in the bar code given to keyboard 5a which performs the input by the key stroke, or goods is prepared in the input section 5. Moreover, display 6b for customers which displays the information about the goods registered to display 6a for operators and the customer who display the information about the goods registered to the operator is prepared in the display 6. In addition, 8a shown in drawing 1 is a card slot which inserts a customer card. Moreover, the operator information to which the bit map data of an operator's face picture (a portrait or photograph) were made to correspond is registered into the database 9 with an operator's name, an introduction sentence, etc. for every operator, and it memorizes by the data structure which uses as a key the operator code which discriminates an operator, and can search it. A database 9 is equivalent to the storage section said by the invention in this application.

[0015] Hereafter, operation of the POS terminal which is the operation gestalt of this invention is explained. Drawing 3 is a flow chart which shows processing of the POS terminal of this operation gestalt. POS terminal 1 of this operation gestalt performs two processings of dealings processing in which dealings with the image information read-out processing and the customer who memorize the operator information taken out from the database 9 to the predetermined storage area of RAM4 are processed.

[0016] First, image information read-out processing is explained, referring to drawing 3 (A). This processing is processing performed when the operator who operates POS terminal 1 takes the place. The operator who took the place operates the input section 5, and inputs his identification code (operator code). If an operator code is inputted (n1), POS terminal 1 will use the inputted operator code as a key, will search a database 9 (n2), will read the corresponding operator information, will memorize this to the predetermined storage area of RAM4, and will end this processing (n3).

[0017] Next, dealings processing of the POS terminal of this operation gestalt is explained, referring to drawing 3 (B). An operator inputs goods identification code using keyboard 5a or bar code reader 5b for every goods in which it trades as everyone knows. POS terminal 1 will

perform goods registration processing of the common knowledge which registers these goods, if goods identification code is inputted (n11) (n13). The processing which prints in a receipt tradenames, prices, etc. of the goods registered by the printer 7 is also included in processing of n12. An operator will operate the subtotal key prepared in keyboard 5a, if registration of all the goods in which it trades is completed.

[0018] POS terminal 1 will perform subtotal processing which displays the total amount of money of the goods registered into the display 6 etc., if a subtotal key is operated (n12 → n14). An operator inputs the amount of the cash kept for the customer after this, and operates a reset key. If a reset key is operated (n15), POS terminal 1 will perform settlement-of-accounts processing which prints the inputted deposit frame, a change frame, etc. in a receipt (n16), will print in a receipt the operator information further memorized to the predetermined storage area of RAM4 (n17), and will publish a receipt (n18). An operator hands a customer a receipt, change, etc. which were published and completes dealings.

[0019] Drawing 4 is drawing showing the receipt published by the POS terminal of this operation gestalt. As shown in drawing 4, the receipt 11 bottom (portion surrounded with the dashed line all over drawing) is printing the LOGO and the content of dealings of a store like the conventional dealings processor. The receipt 11 bottom is printing this operator's name, an introduction sentence, etc. with an operator's face picture. Moreover, the message (guidance MESSEJI of the large bargain sale in drawing) to a customer is also printed. Thus, by printing an operator's face picture etc., a customer can have a sense of closeness to an operator, and the good image that it is a store sociable to a customer can be given to a receipt 11. Consequently, a customer can be fixed to a self-store and sales can be improved. Furthermore, the reliance to a customer's store can also be improved by printing the telephone number of references (information center etc.) etc.

[0020] Next, POS terminal 1 concerning another operation gestalt of this invention is explained. POS terminal 1 of this operation gestalt stored the above-mentioned not operator information but event information in the database 9. The event information said here is the explanatory note of the image information about the event, and its event etc., and it memorizes by the data structure which uses dates (enforcing date of this event etc.) as a key, and can search them.

[0021] Drawing 5 is a flow chart which shows the image information read-out processing in POS terminal 1 of this operation gestalt. POS terminal 1 of this operation gestalt performs image information read-out processing, when a power supply is switched on and it starts. If a power supply is switched on and POS terminal 1 starts (n21), it will use today's date as a key, will search a database 9 (n22), will memorize the corresponding event information to the predetermined storage area of RAM4, and will end this processing (n23).

[0022] In addition, the dealings processing in POS terminal 1 of this operation gestalt is the same as the processing shown in drawing 3 (B), and omits explanation here.

[0023] Drawing 6 is drawing showing the receipt published by the POS terminal of this operation gestalt. The receipt 11 published by POS terminal 1 of this operation gestalt also prints the LOGO and the content of dealings of a store to the up side (portion surrounded with the dashed line all over drawing), and is printing the picture of an event, and its explanatory note to the bottom of it. Moreover, the message to a customer as well as the above-mentioned operation gestalt is printed. Thus, by printing the picture of an event in a receipt 11, the pleasure which looks at a receipt 11 can be given to a customer, a customer can be fixed to a self-store as a result, and sales can be raised. Moreover, if it is made to print the message which stimulates the purchase of goods related to the printed event (un-illustrating), sale of these goods can be promoted and much more sales can be raised. For example, what is necessary is just to print the message which stimulates the purchase of HINAARARE, waterchestnut rice cake, etc., when the event printed in the receipt is the Girl's Festival.

[0024] Moreover, the POS terminal concerning another operation gestalt of this invention is explained. POS terminal 1 of this operation gestalt has memorized goods information in the database. The goods information said here is an explanatory note containing the picture of goods, the prices of these goods, etc. Moreover, POS terminal 1 has memorized the link information to which goods with high possibility of being purchased simultaneously were made to

link. For example, when it thinks with the dish called curry, possibility that curry powder, meat, a potato, an onion, \*\*\*\*\* etc. will be purchased simultaneously is high, and a link relation among these goods is.

[0025] Drawing 7 is a flow chart which shows the dealings processing in the POS terminal of this operation gestalt. n11-n16 are processed like POS terminal 1 of two operation gestalten which also described above POS terminal 1 of this operation gestalt. POS terminal 1 of this operation gestalt will guess the goods of a failure to buy it from the goods registered using the link information, if processing of n16 is completed (n31). For example, if red pickles are not registered into curry powder, meat, the potato, and the onion being registered, it is guessed that red pickles are the goods of a failure to buy it. POS terminal 1 reads the goods information on the goods of the failure which searched the database 9 and was guessed by n31 to buy it (n32), prints this goods information in a receipt 11 (n33), publishes a receipt, and ends this processing (n18).

[0026] The receipt published by drawing 8 by POS terminal 1 of this operation gestalt is shown. In the explanatory note, the message which checks to a customer whether he forget to buy the goods which printed the picture is contained. While the goods which he has forgotten to buy for a customer can be made to notice by this and improvement can plan customer service, these goods that he has forgotten to buy can be made to purchase certainly at a self-store, and improvement in sales can also be aimed at.

[0027] In addition, although the picture of the goods which guess from the registered goods and a customer has forgotten to buy with POS terminal 1 of the above-mentioned operation gestalt is printed, you may make it print the explanatory note with the picture of a bargain or new goods regardless of the registered goods. If it does in this way, a customer's attractiveness to consumers over these goods can be promoted, and the sales of a self-store can be improved.

[0028] Furthermore, the POS terminal of another operation gestalt of this invention is explained. POS terminal 1 of this operation gestalt is the composition of having added the photography section 10 to the composition of the POS terminal of the operation gestalt described above as shown in drawing 9. This photography section 10 is a CCD camera, and is arranged in the position which photos a customer's face. Two or more kinds of pictures from which characteristic quantity differs for every face parts divided into an eye, a nose, a mouth, eyebrows, the ear, the profile, and the hair form are registered into the database 9. The characteristic quantity said here inclines about an eye, and is a radius of circle (aspect ratio) and a size.

[0029] Dealings processing of POS terminal 1 of this operation gestalt is explained referring to drawing 10. Processing of n11-n16 is performed like the thing of the operation gestalt which also described above POS terminal 1 of this operation gestalt. If settlement-of-accounts processing is completed, POS terminal 1 of this operation gestalt will print the portrait which processed the image data of a customer's face photoed in the photography section 10, created a customer's portrait (n41), and was created in the receipt here (n42), will publish this receipt, and will end this processing (n18).

[0030] Next, the processing which creates the portrait in n41 is explained, referring to drawing 11. POS terminal 1 processes the image data of a customer's photoed face, and extracts the characteristic quantity on every face parts (an eye, a nose, a mouth, eyebrows, an ear, a profile, and hair form) (n51). POS terminal 1 searches a database 9 based on the characteristic quantity extracted here (n52), and reads suitable image data for every face parts (n53). And a customer's portrait is created by combining the image data for every read face parts (n54).

[0031] The receipt published by the POS terminal of this operation gestalt by drawing 12 is shown. A customer's portrait is printed by the receipt 11 bottom as shown in drawing. Moreover, in the bottom of it, the message to a customer is printed like the thing of each above-mentioned operation gestalt. Thus, since a customer's portrait was printed in the receipt 11, the pleasure which looks at a receipt 11 can be given to a customer, a customer can be fixed to a self-store as a result, and sales can be raised.

[0032] In addition, although [ the above-mentioned operation gestalt ] a database 9 is formed in POS terminal 1, it may prepare in the host equipment which is not illustrated and you may be the composition of performing data communication between POS terminal 1 and host equipment.

[0033]

[Effect of the Invention] As mentioned above, according to this invention, the feature can be given to the receipt published at the time of dealings processing by printing an operator's face picture, the picture of an event, the picture of goods, a customer's portrait, etc. Thus, by having given the feature to the receipt, the image over a customer's self-store is raised, a customer can be fixed and sales can be raised as a result.

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**TECHNICAL FIELD**

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[The technical field to which invention belongs] This invention relates to the dealings processor which publishes a receipt characteristic especially at the time of dealings processing about dealings processors, such as a POS terminal which processes dealings based on the inputted dealings data.

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**PRIOR ART**

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[Description of the Prior Art] Conventionally, at the store, the goods in which it trades are registered into dealings processors, such as a POS terminal, the dealings amount of money is paid, and dealings with a customer are processed. The receipt which printed the contents of dealings at the time of settlement of accounts is published, and it enables it to check whether a customer is correct by the contents of dealings from the contents of printing of this receipt in a common dealings processor.

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**EFFECT OF THE INVENTION**

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[Effect of the Invention] As mentioned above, according to this invention, the feature can be given to the receipt published at the time of dealings processing by printing an operator's face picture, the picture of an event, the picture of goods, a customer's portrait, etc. Thus, by having given the feature to the receipt, the image over a customer's self-store is raised, a customer can be fixed and sales can be raised as a result.

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**TECHNICAL PROBLEM**

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[Problem(s) to be Solved by the Invention] By the way, recently, a performance becomes good and the printer applied to dealings processors, such as a POS terminal, can also print not only a character but a picture clearly.

[0004] However, in the conventional dealings processor, as a picture, the LOGO of a store was only printed in the upper part of a receipt, the contents of dealings which almost all portions become from a character were printed, and there was no big difference in the receipt which publishes every store. On the other hand, since a receipt is what is passed to a customer, it attains differentiation with other stores by giving the feature to a receipt, and is in the inclination to use for improvement in sales. Then, a receipt more characteristic than other stores is published and the dealings processor which can raise sales is demanded.

[0005] The purpose of this invention is by publishing the receipt which printed the picture which promotes a customer's attractiveness to consumers under the contents of dealings, and the picture which raises the image over a customer's store to offer the dealings processor which can fix a customer to a self-store and can improve the sales of a store.

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## MEANS

[Means for Solving the Problem] The dealings processor of this invention is equipped with the input section which inputs the dealings data about dealings, the printer which prints the content of dealings based on the inputted aforementioned dealings data, and the storage section which memorizes image information, and the aforementioned printer prints a picture after printing of the content of dealings based on the image information memorized to the aforementioned storage section.

[0007] The receipt which printed the picture memorized by the storage section under the content of dealings can be made to publish with this composition. Here, if the storage section is made to memorize the picture which promotes a customer's attractiveness to consumers, and the picture which raises the image over a store, a customer can be fixed to a self-store and the sales of a store can be improved as a result.

[0008] Moreover, the aforementioned storage section is equipped with the control section which determines the picture printed by the aforementioned printer from two or more image information which memorizes two or more image information and is memorized by the aforementioned storage section.

[0009] With this composition, a control section determines the picture printed in a receipt out of two or more pictures memorized by the storage section.

[0010] Moreover, a sense of closeness can be given to a customer for the picture printed in a receipt to an operator's face picture, then self-store, and, thereby, a customer can be fixed to a self-store.

[0011] Moreover, if the picture of the goods of the failure guessed from the goods which the customer purchased to buy it, a bargain, or a customer's favorite goods is printed, the purchase of the goods printed in this receipt to the customer can be urged effectively, and the sales of a store can be raised as a result.

[0012] Moreover, if the picture of an event is printed, the pleasure which looks at the picture printed by the receipt published to dealings \*\*\*\*\* to a customer can be given, a customer can be fixed to a self-store by this, and sales can be raised.

[0013] Furthermore, if a customer's portrait is printed, the image which a customer has to a self-store can be improved, a customer can be fixed to a self-store by this, and sales can be raised.

[0014]

[Embodiments of the Invention] Drawing 1 is drawing showing the appearance of the dealings processor which is the operation gestalt of this invention, and drawing 2 is the block diagram showing the composition of this dealings processor. The control section A which has CPU2, ROM3, and RAM4 by which POS terminal 1 controls operation of a main part. The input section 5 which performs alter operation, such as registration of goods, and the display 6 which displays the information about the registered goods etc., It has the printer 7 which publishes the receipt which printed the content of dealings, the card processing section 8 which reads the information memorized by the customer card which a customer owns, and the database 9 which memorizes the operator information mentioned later. Bar code reader 5b which reads goods identification code in the bar code given to keyboard 5a which performs the input by the key stroke, or goods

is prepared in the input section 5. Moreover, display 6b for custom rs which displays the information about the goods regist r d to display 6a for operators and the customer who display the information about the goods regist red to the operator is prepared in the display 6. In addition, 8a shown in drawing 1 is a card slot which inserts a customer card. Moreover, the operator information to which the bit map data of an operator's face picture (a portrait or photograph) were made to correspond is registered into the database 9 with an operator's name, an introduction sentence, etc. for every operator, and it memorizes by the data structure which uses as a key the operator code which discriminates an operator, and can search it. A database 9 is equivalent to the storage section said by the invention in this application.

[0015] Hereafter, operation of the POS terminal which is the operation gestalt of this invention is explained. Drawing 3 is a flow chart which shows processing of the POS terminal of this operation gestalt. POS terminal 1 of this operation gestalt performs two processings of dealings processing in which dealings with the image information read-out processing and the customer who memorize the operator information taken out from the database 9 to the predetermined storage area of RAM4 are processed.

[0016] First, image information read-out processing is explained, referring to drawing 3 (A). This processing is processing performed when the operator who operates POS terminal 1 takes the place. The operator who took the place operates the input section 5, and inputs his identification code (operator code). If an operator code is inputted (n1), POS terminal 1 will use the inputted operator code as a key, will search a database 9 (n2), will read the corresponding operator information, will memorize this to the predetermined storage area of RAM4, and will end this processing (n3).

[0017] Next, dealings processing of the POS terminal of this operation gestalt is explained, referring to drawing 3 (B). An operator inputs goods identification code using keyboard 5a or bar code reader 5b for every goods in which it trades as everyone knows. POS terminal 1 will perform goods registration processing of the common knowledge which registers these goods, if goods identification code is inputted (n11) (n13). The processing which prints in a receipt tradenames, prices, etc. of the goods registered by the printer 7 is also included in processing of n12. An operator will operate the subtotal key prepared in keyboard 5a, if registration of all the goods in which it trades is completed.

[0018] POS terminal 1 will perform subtotal processing which displays the total amount of money of the goods registered into the display 6 etc., if a subtotal key is operated (n12 →n14). An operator inputs the amount of the cash kept for the customer after this, and operates a reset key. If a reset key is operated (n15), POS terminal 1 will perform settlement-of-accounts processing which prints the inputted deposit frame, a change frame, etc. in a receipt (n16), will print in a receipt the operator information further memorized to the predetermined storage area of RAM4 (n17), and will publish a receipt (n18). An operator hands a customer a receipt, change, etc. which were published and completes dealings.

[0019] Drawing 4 is drawing showing the receipt published by the POS terminal of this operation gestalt. As shown in drawing 4 , the receipt 11 bottom (portion surrounded with the dashed line all over drawing) is printing the LOGO and the content of dealings of a store like the conventional dealings processor. The receipt 11 bottom is printing this operator's name, an introduction sentence, etc. with an operator's face picture. Moreover, the message (guidance MESSEJI of the large bargain sale in drawing) to a customer is also printed. Thus, by printing an operator's face picture etc., a customer can have a sense of closeness to an operator, and the good image that it is a store sociable to a customer can be given to a receipt 11. Consequently, a customer can be fixed to a self-store and sales can be improved. Furthermore, the reliance to a customer's store can also be improved by printing the telephone number of references (information center etc.) etc.

[0020] Next, POS terminal 1 concerning another operation gestalt of this invention is explained. POS terminal 1 of this operation gestalt stored the above-mentioned operator information but event information in the database 9. The event information said here is the explanatory note of the image information about the event, and its event etc., and it memorizes by the data structure which uses dates (enforcing date of this event etc.) as a key, and can search them.

[0021] Drawing 5 is a flow chart which shows the image information read-out processing in POS terminal 1 of this operation form. POS terminal 1 of this operation form performs image information read-out processing, when a power supply is switched on and it starts. If a power supply is switched on and POS terminal 1 starts (n21), it will use today's date as a key, will search a database 9 (n22), will memorize the corresponding event information to the predetermined storage area of RAM4, and will end this processing (n23).

[0022] In addition, the dealings processing in POS terminal 1 of this operation form is the same as the processing shown in drawing 3 (B), and omits explanation here.

[0023] Drawing 6 is drawing showing the receipt published by the POS terminal of this operation form. The receipt 11 published by POS terminal 1 of this operation form also prints the LOGO and the contents of dealings of a store to the up side (portion surrounded with the dashed line all over drawing), and is printing the picture of an event, and its explanatory note to the bottom of it. Moreover, the message to a customer as well as the above-mentioned operation form is printed. Thus, by printing the picture of an event in a receipt 11, the pleasure which looks at a receipt 11 can be given to a customer, a customer can be fixed to a self-store as a result, and sales can be raised. Moreover, if it is made to print the message which stimulates the purchase of goods related to the printed event (un-illustrating), sale of these goods can be promoted and much more sales can be raised. For example, what is necessary is just to print the message which stimulates the purchase of HINAARARE, waterchestnut rice cake, etc., when the event printed in the receipt is the Girl's Festival.

[0024] Moreover, the POS terminal concerning another operation gestalt of this invention is explained. POS terminal 1 of this operation gestalt has memorized goods information in the database. The goods information said here is an explanatory note containing the picture of goods, the prices of these goods, etc. Moreover, POS terminal 1 has memorized the link information to which goods with high possibility of being purchased simultaneously were made to link. For example, when it thinks with the dish called curry, possibility that curry powder, meat, a potato, an onion, \*\*\*\*\* etc. will be purchased simultaneously is high, and a link relation among these goods is.

[0025] Drawing 7 is a flow chart which shows the dealings processing in the POS terminal of this operation form. n11-n16 are processed like POS terminal 1 of two operation forms which also described above POS terminal 1 of this operation form. POS terminal 1 of this operation form will guess the goods of a failure to buy it from the goods registered using the link information, if processing of n16 is completed (n31). For example, if red pickles are not registered into curry powder, meat, the potato, and the onion being registered, it is guessed that red pickles are the goods of a failure to buy it. POS terminal 1 reads the goods information on the goods of the failure which searched the database 9 and was guessed by n31 to buy it (n32), prints this goods information in a receipt 11 (n33), publishes a receipt, and ends this processing (n18).

[0026] The receipt published by drawing 8 by POS terminal 1 of this operation form is shown. In the explanatory note, the message which checks to a customer whether he forgot to buy the goods which printed the picture is contained. While the goods which he has forgotten to buy for a customer can be made to notice by this and improvement can plan customer service, these goods that he has forgotten to buy can be made to purchase certainly at a self-store, and improvement in sales can also be aimed at.

[0027] In addition, although the picture of the goods which guess from the registered goods and a customer has forgotten to buy with POS terminal 1 of the above-mentioned operation form is printed, you may make it print the explanatory note with the picture of a bargain or new goods regardless of the registered goods. If it does in this way, a customer's attractiveness to consumers over these goods can be promoted, and the sales of a self-store can be improved.

[0028] Furthermore, the POS terminal of another operation form of this invention is explained. POS terminal 1 of this operation form is the composition of having added the photography section 10 to the composition of the POS terminal of the operation form described above as shown in drawing 9. This photography section 10 is a CCD camera, and is arranged in the position which photos a customer's face. Two or more kinds of pictures from which characteristic quantity differs for every face parts divided into an eye, a nose, a mouth,

ey brows, the ear, the profile, and the hair form are registered into the database 9. The characteristic quantity said here inclines about an eye, and is a radius of circle (aspect ratio) and a size.

[0029] Dealings processing of POS terminal 1 of this operation form is explained referring to drawing 10. Processing of n11-n16 is performed like the thing of the operation form which also described above POS terminal 1 of this operation form. If settlement-of-accounts processing is completed, POS terminal 1 of this operation form will print the portrait which processed the image data of a customer's face photoed in the photography section 10, created a customer's portrait (n41), and was created in the receipt here (n42), will publish this receipt, and will end this processing (n18).

[0030] Next, the processing which creates the portrait in n41 is explained, referring to drawing 11. POS terminal 1 processes the image data of a customer's photoed face, and extracts the characteristic quantity on every face parts (an eye, a nose, a mouth, eyebrows, an ear, a profile, and hair form) (n51). POS terminal 1 searches a database 9 based on the characteristic quantity extracted here (n52), and reads suitable image data for every face parts (n53). And a customer's portrait is created by combining the image data for every read face parts (n54).

[0031] The receipt published by the POS terminal of this operation gestalt by drawing 12 is shown. A customer's portrait is printed by the receipt 11 bottom as shown in drawing. Moreover, in the bottom of it, the message to a customer is printed like the thing of each above-mentioned operation gestalt. Thus, since a customer's portrait was printed in the receipt 11, the pleasure which looks at a receipt 11 can be given to a customer, a customer can be fixed to a self-store as a result, and sales can be raised.

[0032] In addition, although [the above-mentioned operation form] a database 9 is formed in POS terminal 1, it may prepare in the host equipment which is not illustrated and you may be the composition of performing data communication between POS terminal 1 and host equipment.

---

[Translation done.]

## \* NOTICES \*

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2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

---

## DESCRIPTION OF DRAWINGS

---

[Brief Description of the Drawings]

[Drawing 1] It is drawing showing the appearance of the dealings processor which is the operation gestalt of this invention.

[Drawing 2] It is the block diagram showing the composition of the dealings processor which is the operation gestalt of this invention.

[Drawing 3] It is the flow chart which shows processing of the dealings processor which is the operation gestalt of this invention.

[Drawing 4] It is drawing showing the receipt published by dealings processing of this operation gestalt.

[Drawing 5] It is the flow chart which shows dealings processing of the POS terminal concerning another operation gestalt of this invention.

[Drawing 6] It is drawing showing the receipt published by the POS terminal concerning another operation gestalt of this invention.

[Drawing 7] It is the flow chart which shows dealings processing of the POS terminal concerning another operation gestalt of this invention.

[Drawing 8] It is drawing showing the receipt published by the POS terminal concerning another operation gestalt of this invention.

[Drawing 9] It is the block diagram showing the composition of the POS terminal concerning the operation gestalt of this invention.

[Drawing 10] It is the flow chart which shows dealings processing of the POS terminal concerning another operation gestalt of this invention.

[Drawing 11] It is the flow chart which shows portrait creation processing of the POS terminal concerning another operation gestalt of this invention.

[Drawing 12] It is drawing showing the receipt published by the POS terminal concerning another operation gestalt of this invention.

[Description of Notations]

1-POS terminal

2-CPU

3-ROM

4-RAM

5-input section

6-display

7-printer

8-card processing section

9-database

11-receipt

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[Translation done.]

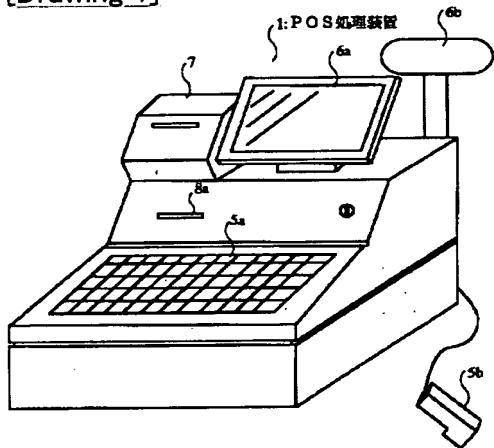
## \* NOTICES \*

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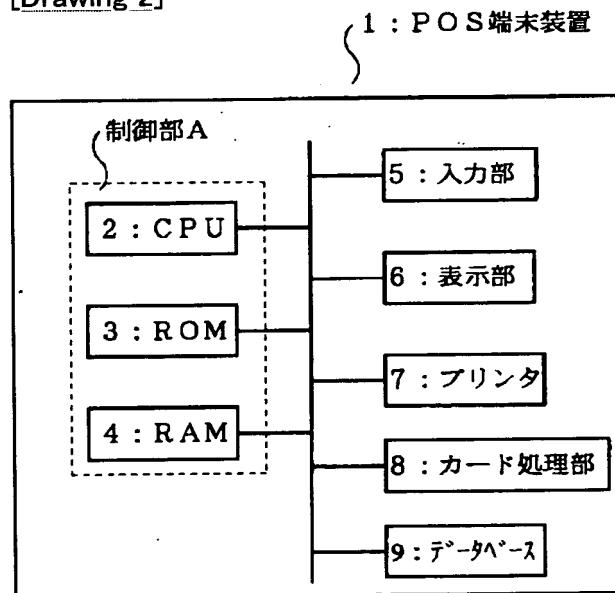
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

## DRAWINGS

## [Drawing 1]

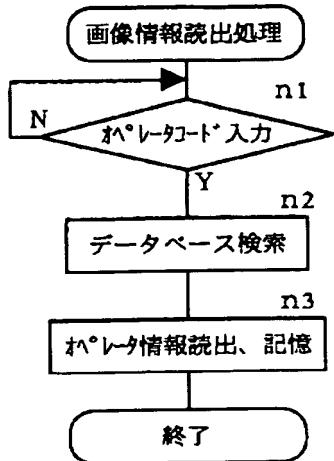


## [Drawing 2]

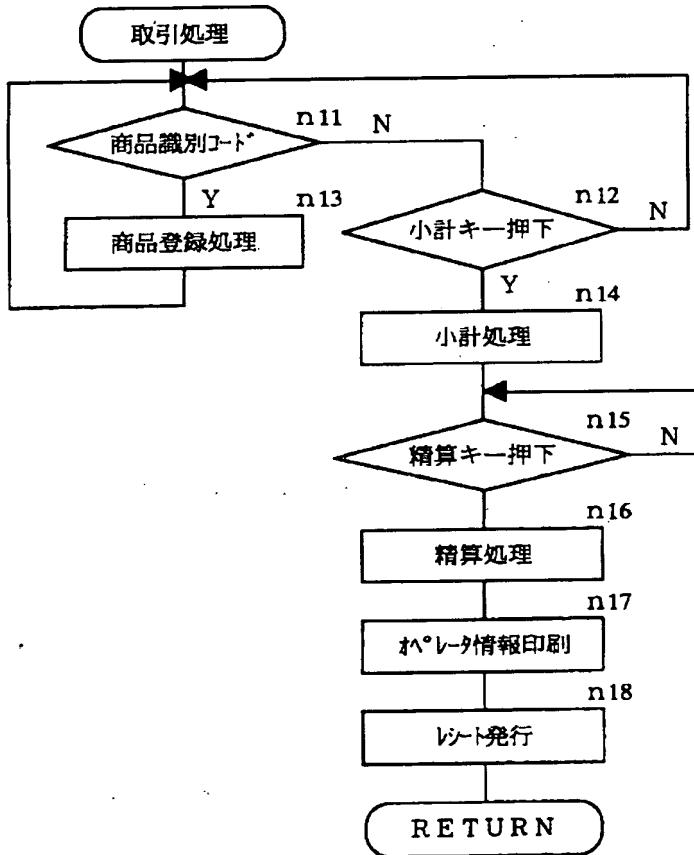


## [Drawing 3]

(A)



(B)



[Drawing 4]

11

## スーパー オムロン

1998年2月28日

000004#4901313154694

○○○○○○○○ 210円

000011#4856319424657

○○○○○○○○ 105円

3個 315円

000002 #49401639

○○○○○○○○ 120円 内

小計 5点 645円

外税 5.00% 26円

外税対象額 525円

合計 671円

現金 1,000円

お釣り 329円

責任者：山田

店NO.1191レジ NO.1901レシートNO.9356



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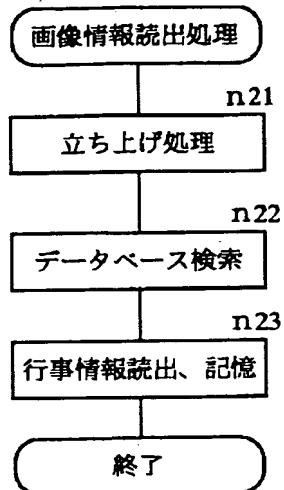
3月1日～3月8日

までです。

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TEL 01-234-5678 まで

[Drawing 5]



[Drawing 6]

11

## スーパー オムロン

1998年2月28日

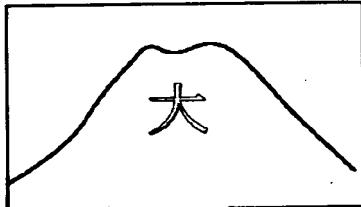
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3個 315円

000002 #49401639  
○○○○○○○○ 120円 内

小計 5点 645円  
外税 5.00% 26円  
外税対象額 525円  
合計 671円  
現金 1,000円  
お釣り 329円

責任者: 山田  
店NO.1191レジ NO.1901レシートNO.9356



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[Drawing 8]

11

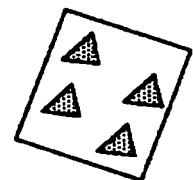
## スーパー オムロン

1998年2月28日

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000011#4587463258728	○○○○○○○○	70円
000081#485542872684	○○○○○○○○	500円
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外税	5.00%	44円
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合計		929円
現金		1,000円
お釣り		71円

責任者: 山田

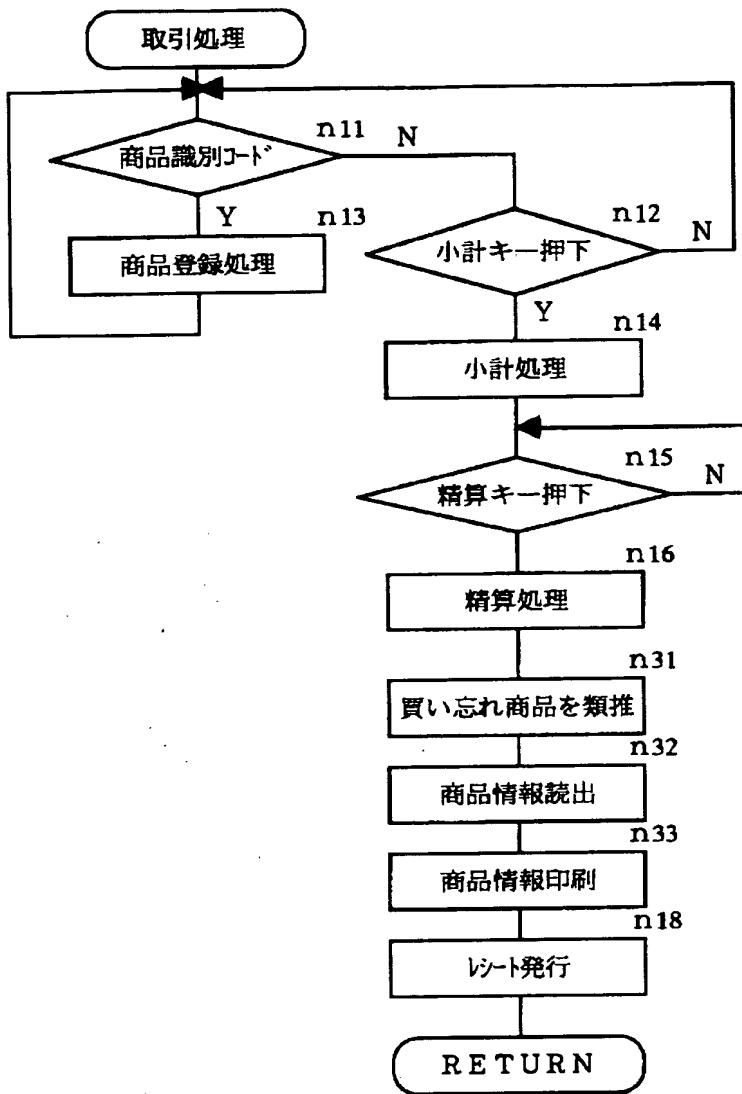
店NO.1191レジ NO.1901レシートNO.9356



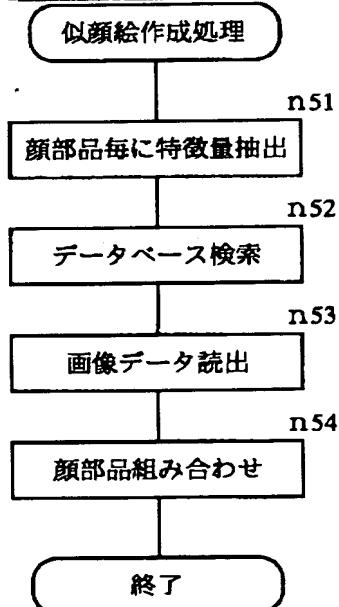
お客様、今夜は○○○ですか  
 ×××のご購入を忘れていませんか  
 オムロンスーパーの  
 大売出は  
 3月1日～3月8日  
 です。

お問い合わせは  
 TEL 01-234-5678 まで

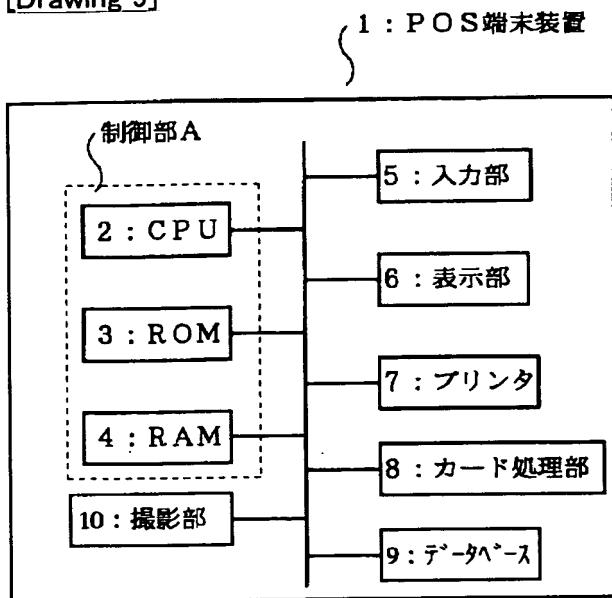
[Drawing 7]



## [Drawing 11]



[Drawing 9]



[Drawing 12]

## スーパー オムロン

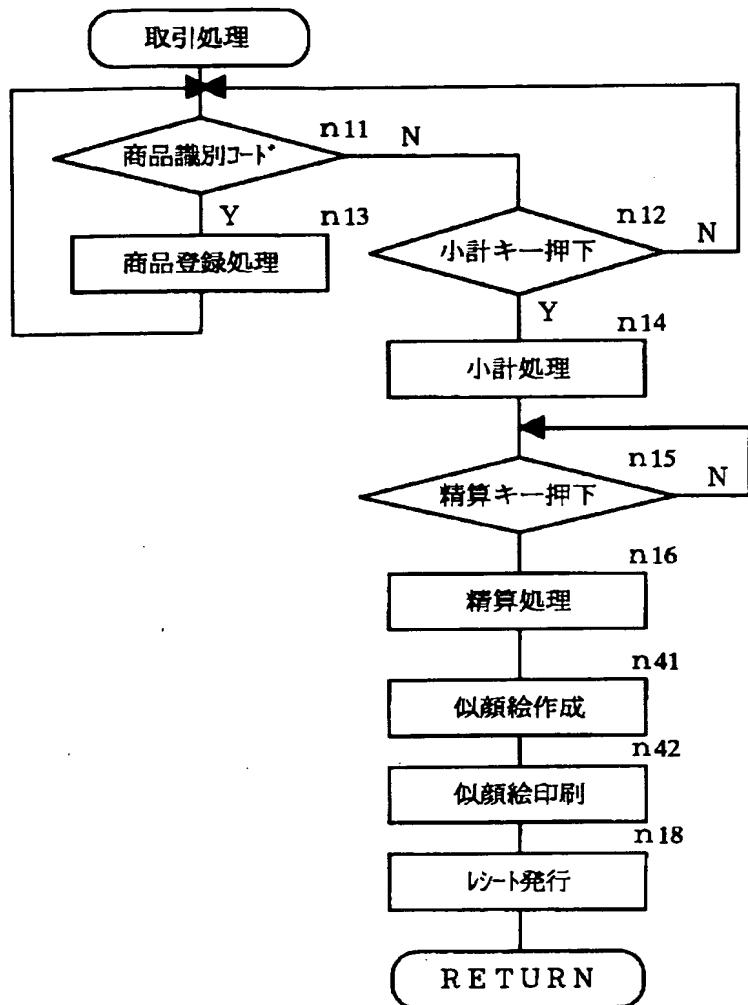
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 オレンジジュース 105円  
 3個 315円  
 000002 #49401639  
 HOPEライト 120円 内  
 小計 5点 645円  
 外税 5.00% 26円  
 外税対象額 525円  
 合計 671円  
 現金 1,000円  
 お釣り 329円

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 店NO.1191レジ NO.1901レシートNO.9356



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[Drawing 10]



[Translation done.]

(19) 日本国特許庁 (JP)

(12) 公開特許公報 (A)

(11) 特許出願公開番号

特開平11-306442

(43) 公開日 平成11年(1999)11月5日

(51) Int.Cl.<sup>6</sup>  
G 0 7 G 1/12

識別記号  
3 5 1

F I  
G 0 7 G 1/12  
3 5 1 Z

審査請求 未請求 請求項の数 6 O.L (全 10 頁)

(21) 出願番号 特願平10-115121

(22) 出願日 平成10年(1998)4月24日

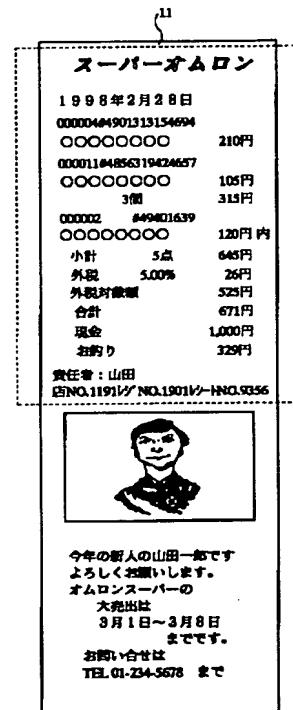
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ムロン株式会社内  
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(54) 【発明の名称】 取引処理装置

(57) 【要約】

【課題】取引内容の下に顧客の購買意欲を促進させる画像や顧客の店舗に対するイメージを向上させる画像を印刷したレシートを発行することによって、顧客を定着させて店舗の売上を向上することができる取引処理装置を提供する。

【解決手段】POS端末装置1は、入力された取引データに基づいて取引内容を印字した後、オペレータの顔画像とともに、該オペレータの紹介文を印刷してレシート11を発行する。このように、レシート11にオペレータの顔画像や紹介文を印刷するようにしたため、顧客にオペレータに対する親近感を持たせ、顧客に親しみやすい店舗であるという良いイメージを抱かせることができる。この結果、顧客を自店舗に定着させて、売上を向上することができる。



**【特許請求の範囲】**

【請求項 1】 取引に関する取引データを入力する入力部と、  
入力された前記取引データに基づいて取引内容を印字するプリンタと、  
画像情報を記憶する記憶部と、を備え、  
前記プリンタは、取引内容の印字後、前記記憶部に記憶している画像情報に基づいて画像を印刷する取引処理装置。

【請求項 2】 前記記憶部は、複数の画像情報を記憶し、  
前記記憶部に記憶されている複数の画像情報から前記プリンタで印刷する画像を決定する制御部を備えた請求項 1 記載の取引処理装置。

【請求項 3】 前記記憶部は、前記画像情報としてオペレータ毎に顔画像を記憶し、  
前記入力部は、オペレータを識別するオペレータコードの入力を受け付け、  
前記制御部は、入力されたオペレータコードで識別されるオペレータの顔画像を前記プリンタで印刷する画像に決定する請求項 2 記載の取引処理装置。

【請求項 4】 前記記憶部は、前記画像情報として商品毎にその画像を記憶し、  
前記制御部は、入力された前記取引データに基づいて前記プリンタで印刷する商品の画像を決定する請求項 2 記載の取引処理装置。

【請求項 5】 前記記憶部は、前記画像情報として行事の画像を記憶し、  
前記制御部は、今日の日付に基づいて前記プリンタで印刷する行事の画像を決定する請求項 2 記載の取引処理装置。

【請求項 6】 前記記憶部は、複数の顔部品のそれぞれについて特徴量の異なる複数の顔画像部品情報を記憶し、  
前記制御部は、顔画像データの入力を受け付け、該顔画像データを処理して顔部品毎に特徴量を抽出し、抽出した特徴量に基づいて顔部品毎に前記顔画像部品情報を読み出して顔画像を作成し、この作成した顔画像をプリンタで印刷する画像とする請求項 2 記載の取引処理装置。

**【発明の詳細な説明】****【0001】**

【発明の属する技術分野】この発明は、入力された取引データに基づいて取引を処理するPOS端末装置等の取引処理装置に関し、特に取引処理時に特徴的なレシートを発行する取引処理装置に関する。

**【0002】**

【従来の技術】従来より、店舗では取引する商品をPOS端末装置等の取引処理装置に登録し、取引金額の精算を行って顧客との取り引きを処理している。一般的な取引処理装置では、精算時に取引内容を印字したレシート

を発行しており、このレシートの印字内容から顧客が取引内容に間違いがないかどうかを確認できるようにしている。

**【0003】**

【発明が解決しようとする課題】ところで、最近ではPOS端末装置等の取引処理装置に適用されているプリンタも性能が良くなり、文字だけでなく画像も明瞭に印刷できる。

【0004】しかしながら、従来の取引処理装置では、画像としてはレシートの上部に店舗のロゴを印刷しているだけで、殆どの部分が文字からなる取引内容を印字したものであり、どの店舗も発行するレシートに大きな違いがなかった。一方、レシートは顧客に渡すものであるため、レシートに特徴を持たせることで他店舗との差別化を図り、売上の向上に役立てる傾向にある。そこで、他店舗よりも特徴的なレシートを発行し、売上を向上させることができる取引処理装置が要望されている。

【0005】この発明の目的は、取引内容の下に顧客の購買意欲を促進させる画像や顧客の店舗に対するイメージを向上させる画像を印刷したレシートを発行することによって、自店舗に顧客を定着させて店舗の売上を向上することができる取引処理装置を提供することにある。

**【0006】**

【課題を解決するための手段】この発明の取引処理装置は、取引に関する取引データを入力する入力部と、入力された前記取引データに基づいて取引内容を印字するプリンタと、画像情報を記憶する記憶部と、を備え、前記プリンタは、取引内容の印字後、前記記憶部に記憶している画像情報に基づいて画像を印刷する。

【0007】この構成では、取引内容の下に記憶部に記憶されている画像を印刷したレシートを発行することができる。ここで、顧客の購買意欲を促進する画像や店舗に対するイメージを向上させる画像を記憶部に記憶させておけば、自店舗に顧客を定着させることができ、結果的に店舗の売上が向上できる。

【0008】また、前記記憶部は、複数の画像情報を記憶し、前記記憶部に記憶されている複数の画像情報から前記プリンタで印刷する画像を決定する制御部を備えている。

【0009】この構成では、記憶部に記憶されている複数の画像の中からレシートに印刷する画像を制御部が決定する。

【0010】また、レシートに印刷する画像をオペレータの顔画像とすれば、自店舗に対して顧客に親近感を持たせることができ、これにより自店舗に顧客を定着させることができる。

【0011】また、顧客の購入した商品から類推される買い物忘れの商品、特売品、または、顧客の好みの商品の画像を印刷すれば、顧客に対してこのレシートに印刷した商品の購入を効果的に促すことができ、結果的に店舗

の売上を向上させることができる。

【0012】また、行事の画像を印刷すれば、顧客に対して取引処理自に発行するレシートに印刷された画像を見る楽しみを与えることができ、これにより自店舗に顧客を定着させて売上を向上させることができる。

【0013】さらに、顧客の似顔絵を印刷すれば、自店舗に対して顧客が持つイメージを向上することができ、これにより自店舗に顧客を定着させて売上を向上させることができる。

【0014】

【発明の実施の形態】図1は、この発明の実施形態である取引処理装置の外観を示す図であり、図2は同取引処理装置の構成を示すブロック図である。POS端末装置1は、本体の動作を制御するCPU2、ROM3およびRAM4を有する制御部Aと、商品の登録等の入力操作を行う入力部5と、登録された商品に関する情報等を表示する表示部6と、取引内容を印字したレシートを発行するプリンタ7と、顧客の所有する顧客カードに記憶されている情報を読み取るカード処理部8と、後述するオペレータ情報を記憶したデータベース9とを備えている。入力部5には、キー操作による入力を行うキーボード5aや商品に付されているバーコードから商品識別コードを読み取るバーコードリーダ5bが設けられている。また、表示部6には、オペレータに対して登録された商品に関する情報を表示するオペレータ用表示部6aと、顧客に対して登録された商品に関する情報を表示する顧客用表示部6bとが設けられている。なお、図1に示す3aは顧客カードを挿入するカード挿入口である。また、データベース9には、オペレータ毎にオペレータの名前や紹介文等とともにオペレータの顔画像（似顔絵または写真）のビットマップデータを対応させたオペレータ情報が登録されており、オペレータを識別するオペレータコードをキーにして検索できるデータ構造で記憶されている。データベース9が本願発明で言う記憶部に相当する。

【0015】以下、この発明の実施形態であるPOS端末装置の動作を説明する。図3は、この実施形態のPOS端末装置の処理を示すフローチャートである。この実施形態のPOS端末装置1は、データベース9から取り出したオペレータ情報をRAM4の所定の記憶エリアに記憶する画像情報読み出し処理および顧客との取引を処理する取引処理の2つの処理を実行する。

【0016】まず、図3（A）を参照しながら画像情報読み出し処理を説明する。この処理は、POS端末装置1を操作するオペレータが交代したときに実行させる処理である。交代したオペレータは、入力部5を操作して自分の識別コード（オペレータコード）を入力する。POS端末装置1は、オペレータコードが入力されると（n1）、入力されたオペレータコードをキーにしてデータベース9を検索し（n2）、該当するオペレータ情報を

読み出しこれをRAM4の所定の記憶エリアに記憶して本処理を終了する（n3）。

【0017】次に、図3（B）を参照しながらこの実施形態のPOS端末装置の取引処理を説明する。オペレータは、周知のように取引する商品毎にキーボード5aまたはバーコードリーダ5bを用いて商品識別コードの入力を行う。POS端末装置1は、商品識別コードが入力されると（n11）、該商品を登録する周知の商品登録処理を行う（n13）。n12の処理には、プリンタ7で登録された商品の商品名や価格等をレシートに印字する処理も含まれる。オペレータは取引する全ての商品の登録を完了すると、キーボード5aに設けられている小計キーを操作する。

【0018】POS端末装置1は、小計キーが操作されると、表示部6に登録した商品の合計金額等を表示する小計処理を行う（n12→n14）。オペレータはこの後顧客から預かった現金の金額を入力して、精算キーを操作する。POS端末装置1は、精算キーが操作されると（n15）、入力された預かり金額や釣り銭額等をレシートに印字する精算処理を行い（n16）、さらにRAM4の所定の記憶エリアに記憶しているオペレータ情報をレシートに印刷し（n17）、レシートを発行する（n18）。オペレータは発行されたレシートや釣り銭等を顧客に渡して取引を完了する。

【0019】図4はこの実施形態のPOS端末装置で発行されるレシートを示す図である。図4に示すように、レシート11の上側（図中に破線で囲んだ部分）は従来の取引処理装置と同様に店舗のロゴや取引内容を印刷している。レシート11の下側は、オペレータの顔画像とともに該オペレータの名前や紹介文等を印刷している。また、顧客へのメッセージ（図では大売出しの案内メッセージ）も印字している。このように、レシート11にオペレータの顔画像等を印刷することで、オペレータに対して顧客が親近感を持ち、顧客に親しみやすい店舗であるという良いイメージを持たせることができる。この結果、顧客を自店舗に定着させて、売上を向上させることができる。さらに、問い合わせ先（インフォメーションセンタ等）の電話番号等を印字しておくことで、顧客の店舗に対する信頼を向上することもできる。

【0020】次に、この発明の別の実施形態にかかるPOS端末装置1について説明する。この実施形態のPOS端末装置1は、データベース9に上記のオペレータ情報ではなく、行事情報を記憶させた。ここで言う行事情報とは、その行事に関する画像情報とその行事の説明文等であり、日付（該行事の実施日等）をキーにして検索できるデータ構造で記憶されている。

【0021】図5はこの実施形態のPOS端末装置1における画像情報読み出し処理を示すフローチャートである。この実施形態のPOS端末装置1は、電源が投入されて立ち上がったときに、画像情報読み出し処理を実行する。P

POS端末装置1は、電源が投入されて立ち上がると(n21)、今日の日付をキーにしてデータベース9を検索し(n22)、該当する行事情報をRAM4の所定の記憶エリアに記憶して本処理を終了する(n23)。

【0022】なお、この実施形態のPOS端末装置1における取引処理は、図3(B)に示した処理と同じであり、ここでは説明を省略する。

【0023】図6は、この実施形態のPOS端末装置で発行されるレシートを示す図である。この実施形態のPOS端末装置1で発行されるレシート11も上側(図中に破線で囲んだ部分)に店舗のロゴや取引内容を印字し、その下に行事の画像およびその説明文を印刷している。また、上記の実施形態と同様に、顧客へのメッセージも印字している。このように、レシート11に行事の画像を印刷することで、顧客にレシート11を見る楽しみを与えることができ、結果的に顧客を自店舗に定着させて売上を向上させることができる。また、印刷した行事に関係する商品の購入を促すメッセージを印字するようすれば(不図示)、該商品の販売が促進でき一層の売上を向上させることができる。例えば、レシートに印刷した行事が雑祭りである場合、ヒナアラレやヒシモチ等の購入を促すメッセージを印刷すればよい。

【0024】また、この発明の別の実施形態にかかるPOS端末装置について説明する。この実施形態のPOS端末装置1はデータベースに商品情報を記憶している。

ここで言う商品情報とは、商品の画像および該商品の価格等含む説明文である。また、POS端末装置1は同時に購入される可能性が高い商品をリンクさせたリンク情報を記憶している。例えばカレーと言う料理で考えた場合、カレー粉、お肉、じゃがいも、タマネギ、福神漬け等が同時に購入される可能性が高く、これらの商品間にリンク関係がある。

【0025】図7はこの実施形態のPOS端末装置における取引処理を示すフローチャートである。この実施形態のPOS端末装置1も上記した2つの実施形態のPOS端末装置1と同様にn11～n16の処理を行う。この実施形態のPOS端末装置1は、n16の処理を完了すると、リンク情報を利用して登録された商品から買い忘れの商品を類推する(n31)。例えば、カレー粉、お肉、じゃがいもおよびタマネギが登録されているのに福神漬が登録されていなければ、福神漬が買い忘れの商品であると類推する。POS端末装置1は、データベース9を検索してn31で類推した買い忘れの商品の商品情報を読み出し(n32)、この商品情報をレシート11に印刷し(n33)、レシートを発行して本処理を終了する(n18)。

【0026】図8にこの実施形態のPOS端末装置1で発行されるレシートを示す。説明文の中には画像を印刷した商品を買い忘れていないかを顧客に確認するメッセージが含まれている。これにより、顧客に買い忘れた商

品を気づかせることができ、顧客サービスを向上が図れるとともに、この買い忘れた商品を確実に自店舗で購入させることができ、売上の向上も図れる。

【0027】なお、上記の実施形態のPOS端末装置1では登録された商品から類推して、顧客が買い忘れた商品の画像を印刷するとしたが、登録された商品に関係なく例えば特売品や新商品の画像とともにその説明文を印刷するようにしてもよい。このようにすれば、該商品に対する顧客の購買意欲を促進させることができ、自店舗の売上を向上できる。

【0028】さらに、この発明の別の実施形態のPOS端末装置について説明する。この実施形態のPOS端末装置1は、図9に示すように上記した実施形態のPOS端末装置の構成に撮影部10を追加した構成である。この撮影部10は、CCDカメラであり、顧客の顔を撮影する位置に配置されている。データベース9には、目、鼻、口、眉、耳、輪郭および髪形に分割した顔部品毎に特徴量の異なる複数種類の画像が登録されている。ここで言う特徴量とは、例えば目については傾き、丸み(縦横比)、および大きさである。

【0029】図10を参照しながらこの実施形態のPOS端末装置1の取引処理を説明する。この実施形態のPOS端末装置1も上記した実施形態のものと同様にn11～n16の処理を実行する。この実施形態のPOS端末装置1は、精算処理を完了すると、撮影部10で撮影した顧客の顔の画像データを処理して顧客の似顔絵を作成し(n41)、レシートにここで作成した似顔絵を印刷し(n42)、該レシートを発行して本処理を終了する(n18)。

【0030】次に、図11を参照しながらn41における似顔絵を作成する処理について説明する。POS端末装置1は撮影した顧客の顔の画像データを処理して顔部品(目、鼻、口、眉、耳、輪郭および髪形)毎にその特徴量を抽出する(n51)。POS端末装置1は、ここで抽出した特徴量に基づいてデータベース9を検索して(n52)、顔部品毎に適当な画像データを読み出す(n53)。そして、読みだした顔部品毎の画像データを組み合わせることで顧客の似顔絵を作成する(n54)。

【0031】図12に、この実施形態のPOS端末装置で発行されるレシートを示す。図に示すように、レシート11の下側に顧客の似顔絵が印刷されている。また、その下には、上記した各実施形態のものと同様に顧客へのメッセージを印字している。このように、レシート11に顧客の似顔絵を印刷するようにしたので、顧客にレシート11を見る楽しみを与えることができ、結果的に顧客を自店舗に定着させて売上を向上させることができる。

【0032】なお、上記の実施形態ではデータベース9をPOS端末装置1に設けるとしたが、図示していない

ホスト装置に設けておいて、POS端末装置1とホスト装置間でデータ通信を行う構成であってもよい。

【0033】

【発明の効果】以上のように、この発明によれば、オペレータの顔画像や、行事の画像、商品の画像、顧客の似顔絵等を印刷することによって、取引処理時に発行するレシートに特徴を持たせることができる。このようにして、レシートに特徴を持たせたことで、顧客の自店舗に対するイメージを向上させて、顧客を定着させることができ、結果的に売上を向上させることができる。

【図面の簡単な説明】

【図1】この発明の実施形態である取引処理装置の外観を示す図である。

【図2】この発明の実施形態である取引処理装置の構成を示すブロック図である。

【図3】この発明の実施形態である取引処理装置の処理を示すフローチャートである。

【図4】この実施形態の取引処理で発行されるレシートを示す図である。

【図5】この発明の別の実施形態にかかるPOS端末装置の取引処理を示すフローチャートである。

【図6】この発明の別の実施形態にかかるPOS端末装置で発行されるレシートを示す図である。

【図7】この発明の別の実施形態にかかるPOS端末装置の取引処理を示すフローチャートである。

【図8】この発明の別の実施形態にかかるPOS端末装置で発行されるレシートを示す図である。

【図9】この発明の実施形態にかかるPOS端末装置の構成を示すブロック図である。

【図10】この発明の別の実施形態にかかるPOS端末装置の取引処理を示すフローチャートである。

【図11】この発明の別の実施形態にかかるPOS端末装置の似顔絵作成処理を示すフローチャートである。

【図12】この発明の別の実施形態にかかるPOS端末装置で発行されるレシートを示す図である。

【符号の説明】

1 - POS端末装置

2 - CPU

3 - ROM

4 - RAM

5 - 入力部

6 - 表示部

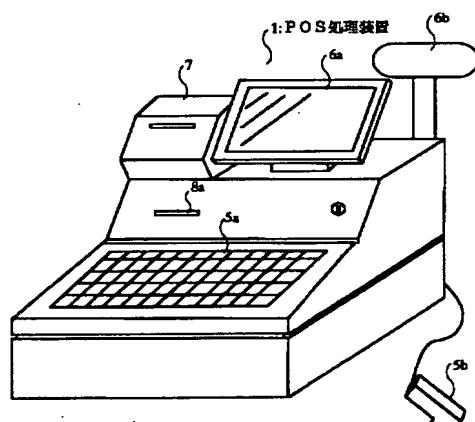
7 - プリンタ

8 - カード処理部

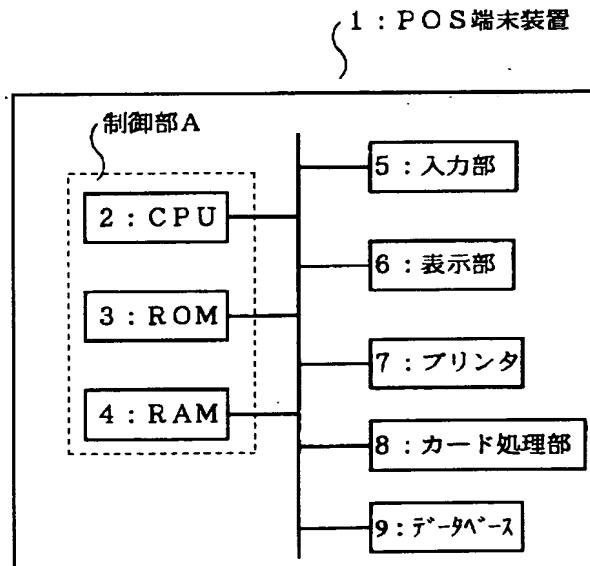
9 - データベース

11 - レシート

【図1】

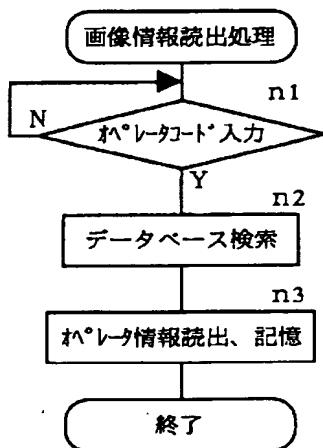


【図2】

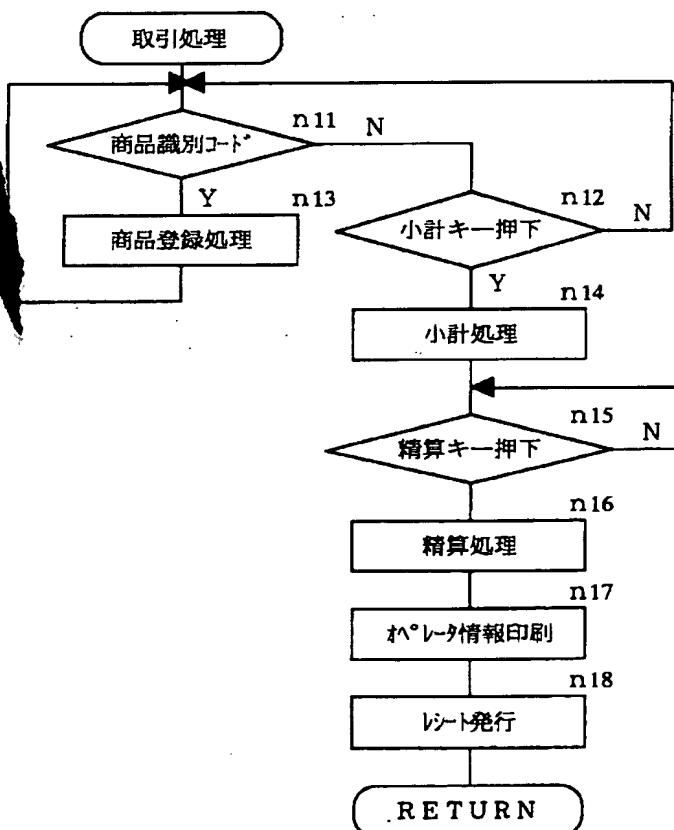


【図3】

(A)



(B)



【図4】

11

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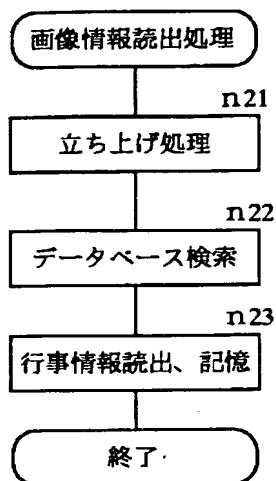
1998年2月28日  
 000004#4901313154694  
 ○○○○○○○○ 210円  
 000011#4856319424657  
 ○○○○○○○○ 105円  
 3個 315円  
 000002 #49401639  
 ○○○○○○○○ 120円 内  
 小計 5点 645円  
 外税 5.00% 26円  
 外税対象額 525円  
 合計 671円  
 現金 1,000円  
 お釣り 329円

責任者：山田  
 店NO.1191レジ NO.1901レシートNO.9356



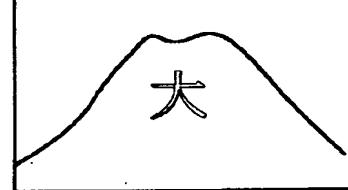
今年の新人の山田一郎です  
 よろしくお願ひします。  
 オムロンスーパーの  
 大売出は  
 3月1日～3月8日  
 までです。  
 お問い合わせは  
 TEL 01-234-5678 まで

【図5】



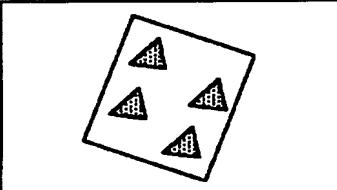
【図6】

11

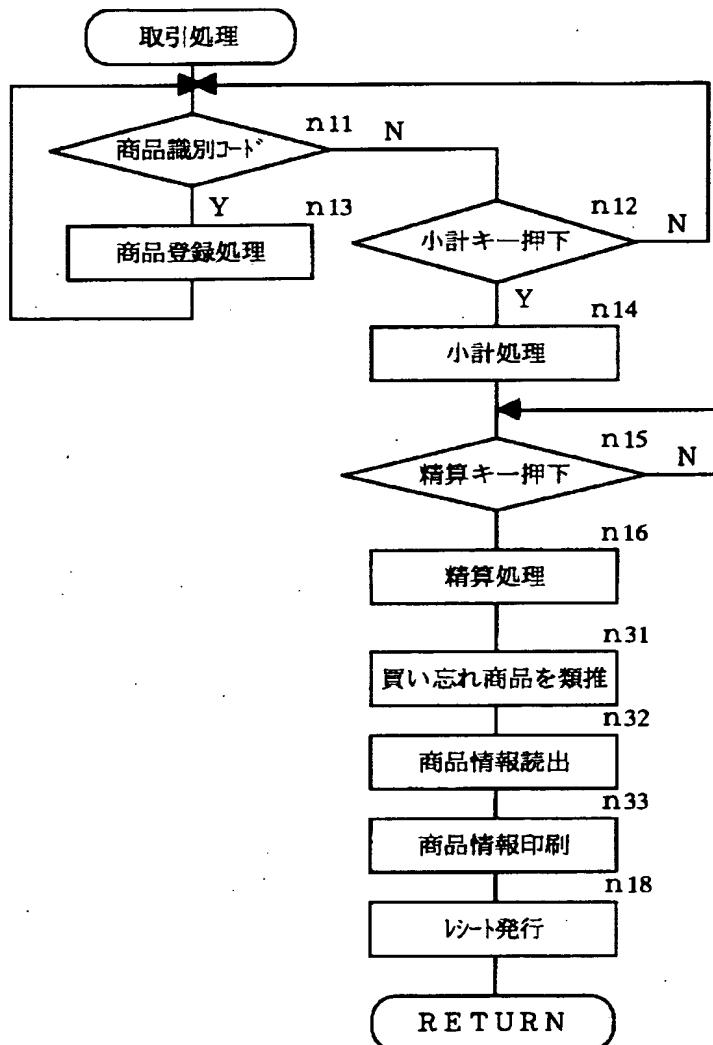
スーパー オムロン		
1998年2月28日		
000004#4901313154694	210円	
○○○○○○○○		210円
000011#4856319424657	105円	
○○○○○○○○		105円
3個	315円	
000002 #49401639	120円 内	
○○○○○○○○		70円
小計 5点	645円	
外税 5.00%	26円	
外税対象額	525円	
合計	671円	
現金	1,000円	
お釣り	329円	
責任者：山田		
店NO.1191レジ NO.1901レシートNO.9356		
		
京都の大文字です。 8月16日に行われます。		
オムロンスーパーの 大売出は 3月1日～3月8日 です。		
お問い合わせは TEL 01-234-5678 まで		

【図8】

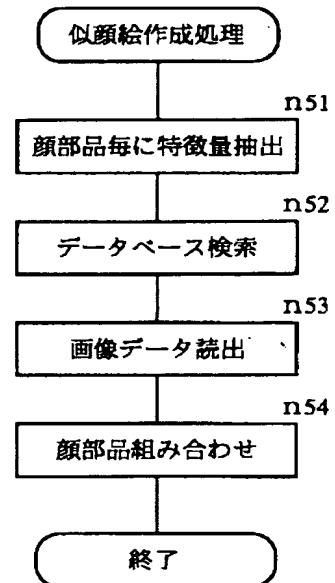
11

スーパー オムロン		
1998年2月28日		
000004#4901313154694	210円	
○○○○○○○○		210円
000011#4856319424657	105円	
○○○○○○○○		105円
000011#4587463258728		
○○○○○○○○		70円
000081#485542872684	500円	
○○○○○○○○		500円
小計 4点	885円	
外税 5.00%	44円	
外税対象額	885円	
合計	929円	
現金	1,000円	
お釣り	71円	
責任者：山田		
店NO.1191レジ NO.1901レシートNO.9356		
		
お客様、今夜は○○○ですか ×××のご購入を忘れていませんか		
オムロンスーパーの 大売出は 3月1日～3月8日 です。		
お問い合わせは TEL 01-234-5678 まで		

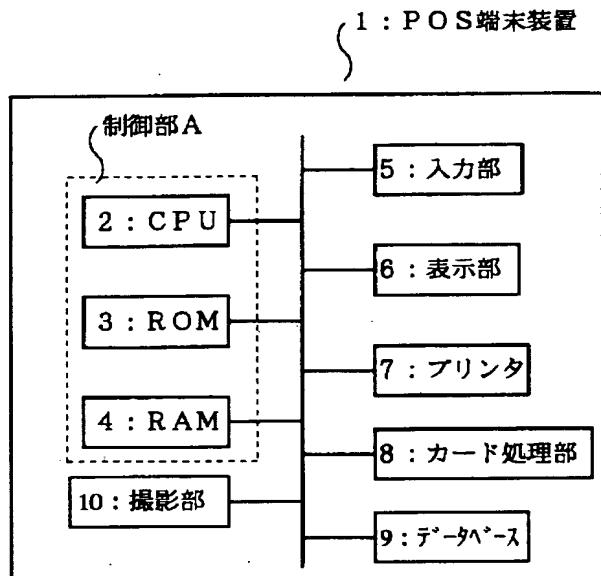
【図7】



【図11】



【図9】



【図12】

11

スーパー オムロン

1998年2月28日

000004#4901313154694	
牛乳1リットル	210円
000011#4856319424657	
カレージュース	105円
3個	315円
000002 #49401639	
HOPEライト	120円 内
小計	5点 645円
外税	5.00% 26円
外税対象額	525円
合計	671円
現金	1,000円
お釣り	329円

責任者：山田  
店NO.1191レジ NO.1901レシートNO.9356

お客様の似顔絵です。  
オムロンスーパーの  
大売出は  
3月1日～3月8日  
です。  
お問い合わせは  
TEL 01-234-5678 まで

【図10】

